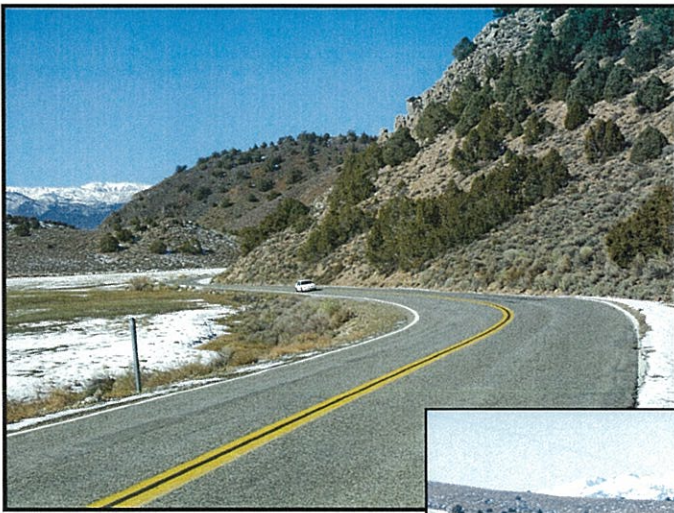


STATE ROUTE 270 TRANSPORTATION CONCEPT REPORT



CALTRANS DISTRICT 9

**Office of System Planning
June 2004**


STATE ROUTE 270

TRANSPORTATION CONCEPT REPORT

**PREPARED
BY
CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 9
OFFICE OF SYSTEM PLANNING**

2004

APPROVAL:



E. KATY WALTON
Deputy District Director
Planning & Programming

6/15/04
DATE



THOMAS P. HALLENBECK
District Director

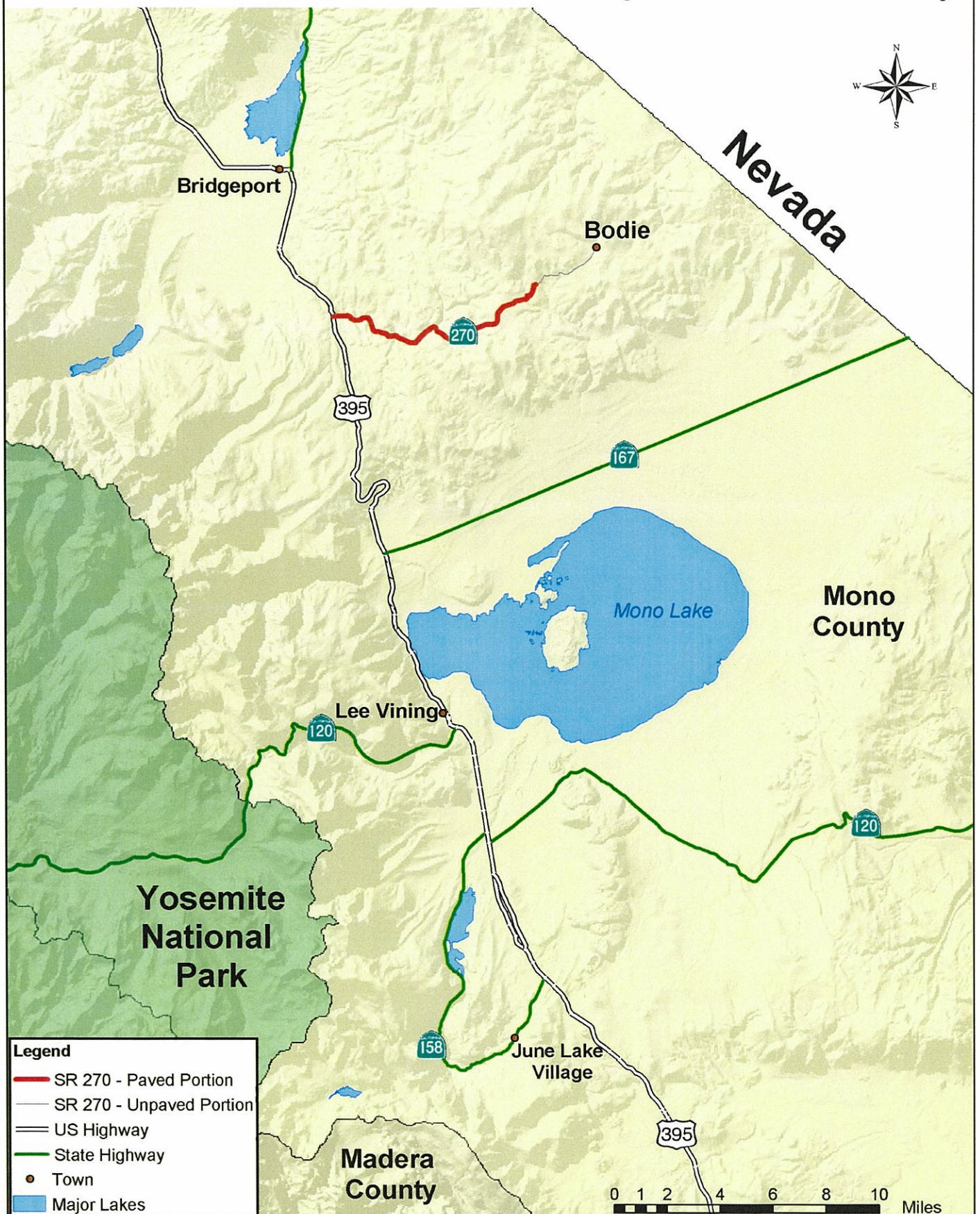
6/23/04
DATE

STATE ROUTE 270 TRANSPORTATION CONCEPT REPORT

TABLE OF CONTENTS

STATE ROUTE 270 CORRIDOR MAP	1
SUMMARY.....	2
ROUTE CONCEPT SUMMARY CHART	5
SEGMENT FACT SHEETS:	
Segment 1 Junction 395 to Bodie State Historic Park	6
STATE ROUTE 270 (US Customary Units) Elevation Profile.....	8
STATE ROUTE 270 (Metric Units) Elevation Profile	9
GLOSSARY	10
ACRONYMNS.....	11
SOURCES of INFORMATION.....	11

State Route 270 Corridor Map - Mono County



State Route 270 Transportation Concept Report Summary

INTRODUCTION

The Transportation Concept Report (TCR) is a long-range planning document that describes the current characteristics of the transportation corridor and establishes a twenty-year planning concept. The TCR defines the California Department of Transportation's (Department) goals for the development of transportation corridors in terms of Level of Service (LOS) and type of facilities. The report broadly identifies the improvements needed to reach those goals.

The District 9 Office of System Planning, in consultation with local and regional agencies, has prepared this TCR. Information in this TCR will be updated as conditions change and new information is obtained. Consequently, the nature and the size of proposed projects may change as the projects move through programming, environmental analysis, and design stages.

ROUTE SYNOPSIS

This TCR covers State Route 270 as one segment, at a length of 13.3 miles (21.40 kilometers).

State Route 270 begins at the Junction of US 395 in Mono County at Post Mile (PM) 69.85, Kilometer Post (KP) 112.41. The paved portion of the roadway extends 9.81 miles (15.79 kilometers) east of US 395. The unpaved roadway continues for 3.49 miles (5.62 KP) and ends at PM 13.3 (KP 21.40), thus ending SR 270 at Bodie State Historic Park. Mono County maintains this portion under agreement with the State Department of Parks and Recreation.

ROUTE HISTORY

State Route 270 leads from US 395 to the mining town named after Waterman S. Body, who discovered gold near the townsite in 1859. It has been documented that the spelling of the town's name was changed to Bodie to ensure proper pronunciation. By 1870, the town of Bodie reached its population peak of approximately 12,000, during which high-grade ore mining produced over \$100 million.

By 1890, the high-grade ore decreased and the population of Bodie fell to around 2,000. A disastrous fire that destroyed many homes and buildings damaged the town in 1892.

With the advent of electrical power to run the mill and mining technologies the town was destroyed again by fire in 1932. In 1940, historical interest revived, this time as a tourist attraction. In 1962, the town of Bodie was declared a State Historic Park.

Assembly Bill No. 508 passed during the 1970 session of the Legislature added SR 270 to the State Highway System. At the time of the resolution adoption, this was a 16-foot wide dirt road (Mono County Road S418) between US 395 and Bodie State Historic Park. In 2002, California Assemblyman Tim Leslie challenged the 8th graders within his district to write an assembly bill. The proposed bill by the students of Lee Vining Middle School proposed to make Bodie the State's official ghost town. On September 4, 2002, then Governor Gray Davis, approved AB 1757 (Section 429.7), designating Bodie as the official state "gold rush ghost town."

The California Transportation Commission Resolution Highway Route Adoption 78-3, dated August 25, 1978, officially designated 9.81 miles (15.79 KM) Bodie Road as SR 270. On December 1, 1978, as a result of an agreement between Mono County and the Department, the resolution was amended, extending the adopted route by 0.4 mile. The extension resulted in the Route's easterly terminus to be relocated from 9.5 to 9.9 miles (15.3 to 15.9 kilometers) east of US 395, upon the County's completing the required upgrade. The resolution stipulated that Mono County would be responsible for continued maintenance and liability until remedial work had been completed.

In the Fall of 1979, all work was officially completed and the maintenance up to PM 9.81 of the adopted SR 270 came under the jurisdiction of the Department's District 9. Mono County and the State Department of Parks and Recreation entered into an agreement on December 6, 1983 pertaining to the unpaved portion of Bodie Road. State Parks and Recreation wanted this 3.49-mile to remain "dirt" so as to preserve the feeling of isolation and the "ghost town" experience of the Bodie State Historic Park. The agreement states in part that Parks and Recreation shall, at its own cost, maintain, develop, repair, improve, construct, and reconstruct the unpaved section of Bodie Road. Currently, the State Department of Parks and Recreation is maintaining the unpaved portion of Bodie Road within the park boundary. If in the future the unpaved portion (3.49 miles) of the route is brought up to State standards, the Department would take over maintenance.

ROUTE DESCRIPTION

State Route 270 is functionally classified as a Major Collector, which provides access to Bodie State Historic Park, recreational opportunities, and sheep ranching. Elevation ranges from 6,800 to 8,300 feet (2,072 to 2,529 meters). The road is generally closed to automobiles from December through April, as there is no snow removal during this time.

PRESENT AND FUTURE OPERATING CONDITIONS

State Route 270 is designated as a Class II facility, as identified under the year 2000 Highway Capacity Manual and is currently operating at a LOS of A. This is a rural highway that is primarily used for outdoor recreational travel. Future enhancement may include a bicycle lane that will enable cyclists greater accessibility. There is some desire to have phased multiple gate closures for cross-country skiers and other Park visitors. The California Department of Parks and Recreation has expressed interest in improving the unpaved portion bringing it up to state standards. Consideration must be given that part of the unpaved portion is within the Area of Critical Environmental Concern, and Bodie Bowl Withdrawal.

EXISTING AND FUTURE DEFICIENCIES

An issue of concern for SR 270 is a lack of improved shoulders for emergency parking and clear zone recovery. Future roadway rehabilitation could include shoulder widening, turnouts and culvert maintenance for drainage improvements to help prevent runoff.

As resurfacing, restoration, and rehabilitation (3R) projects are programmed; consideration should be given to bring this facility up to the latest 3R standards of 4 ft. (1.22 meters) shoulders and 12 ft. (3.35 meters) travel lanes per the Highway Design Manual. However there is verbiage in the California Transportation Commission adoption specifying that 11 ft. (3.35 meters) lanes and 3 ft. (0.91 meter) shoulders are warranted.

STATE ROUTE 270 CONCEPT SUMMARY CHART

County	Segment	Post Miles	Post Kilometers	Current Facility	Concept Facility	Ultimate Facility	Current *LOS	10-Yr *LOS	20-Yr *LOS	Concept *LOS	Fact Sheet Page
Mono	1	0.00/9.81	0.00/15.79	2 Lane Conventional	2 Lane Conventional	2 Lane Conventional	A	A	A	C	6
Mono	Unpaved	9.81/13.30	15.79/21.40	**	**	**	**	**	**	**	6

* Level of service (LOS) is a quality measure describing operational conditions within a traffic stream. Generally, LOS is measured in terms of speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The LOS calculations in this report were based on the 2000 update of the Highway Capacity Manual. Changes in the 2000 Highway Capacity Manual include categorizing two-lane highways into two groups; Class I and Class II facilities.




Class I facilities are two-lane highways in which motorists expect to travel at relatively high speeds. Two-lane highways that are major intercity routes, primary arterials connecting major traffic generators, daily commuter routes, or primary links in state or national highway networks generally are assigned to Class I. LOS calculations for Class I facilities includes the use of both percent time spent following, and average travel speed.

Class II facilities are two-lane highways in which motorists do not necessarily expect to travel at high speeds. Two-lane highways that function as access routes to Class I facilities, serve as scenic or recreational routes that are not primary arterials, or that pass through rugged terrain, generally are assigned to the Class II category. LOS calculations for Class II facilities utilize only percent time spent following.

The Department's District 9 has categorized SR 270 as a Class II facility.

** This portion of SR 270 is maintained by Mono County under agreement with the California Department of Parks and Recreation that extends for 3.49 miles

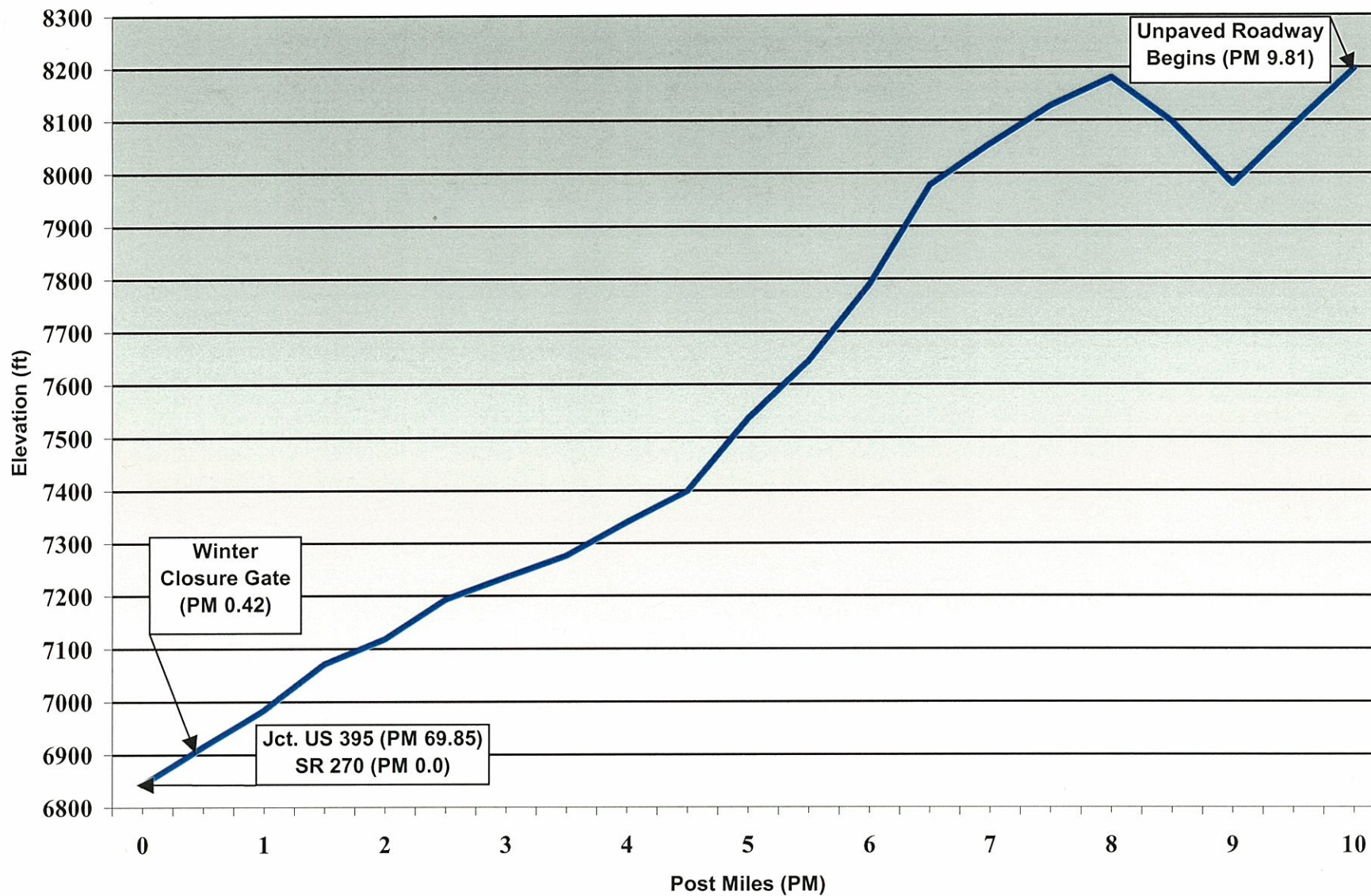
SR 270 SEGMENT FACT SHEET

<table><tr><td>Length in km</td><td>15.79</td><td>Length mi:</td><td>9.81</td></tr><tr><td>KP Back</td><td>0.00</td><td>Back PM</td><td>0.00</td></tr><tr><td>KP Ahead</td><td>15.79</td><td>Ahead PM</td><td>9.81</td></tr><tr><td>Present Facility</td><td colspan="3">Two-Lane Conventional</td></tr><tr><td>Present LOS</td><td colspan="3">A</td></tr><tr><td>Concept Facility</td><td colspan="3">Two-Lane Conventional</td></tr><tr><td>Concept LOS</td><td colspan="3">C</td></tr><tr><td>Ultimate Facility</td><td colspan="3">Two-Lane Conventional</td></tr></table>	Length in km	15.79	Length mi:	9.81	KP Back	0.00	Back PM	0.00	KP Ahead	15.79	Ahead PM	9.81	Present Facility	Two-Lane Conventional			Present LOS	A			Concept Facility	Two-Lane Conventional			Concept LOS	C			Ultimate Facility	Two-Lane Conventional			<table><tr><td>Segment Location</td><td>Junction SR 270/U.S. 395 to SR 270/END OF PAVEMENT</td></tr><tr><td colspan="2"></td></tr></table>	Segment Location	Junction SR 270/U.S. 395 to SR 270/END OF PAVEMENT										
Length in km	15.79	Length mi:	9.81																																										
KP Back	0.00	Back PM	0.00																																										
KP Ahead	15.79	Ahead PM	9.81																																										
Present Facility	Two-Lane Conventional																																												
Present LOS	A																																												
Concept Facility	Two-Lane Conventional																																												
Concept LOS	C																																												
Ultimate Facility	Two-Lane Conventional																																												
Segment Location	Junction SR 270/U.S. 395 to SR 270/END OF PAVEMENT																																												
																																													
<table><tr><td>Segment Description</td></tr><tr><td><p>This segment is a two-lane conventional highway from the Junction of US 395, extending eastbound for 9.81 miles (15.79 kilometers) along winding mountainous terrain varying in elevation from 6,800 feet (2,073 meters) to 8,300 feet (2,529 meters). The beginning of the route features many steep canyon walls. Present roadway conditions include severe cross section deterioration and alligator cracking.</p><p>The remainder of SR 270 is maintained by Mono County under agreement with the California Department of Parks and Recreation, extends for 3.49 miles (5.62 kilometers) of unpaved roadway.</p><p>The entire route is primarily used for access to hiking, designated areas for off-road vehicles, and the gateway to visiting Bodie Historic State Park.</p></td></tr><tr><td>Route Concept Improvement Recommendations</td></tr><tr><td><p>Improvements to include shoulder widening to 4.0 feet (1.22 meters) and travel lanes to 12.0 feet (3.35 meters) throughout paved segment length to meet resurfacing, rehabilitation and restoration standards with consideration of existing drainage network.</p><p>Future road widening will also benefit bicycle use where feasible.</p></td></tr></table>				Segment Description	<p>This segment is a two-lane conventional highway from the Junction of US 395, extending eastbound for 9.81 miles (15.79 kilometers) along winding mountainous terrain varying in elevation from 6,800 feet (2,073 meters) to 8,300 feet (2,529 meters). The beginning of the route features many steep canyon walls. Present roadway conditions include severe cross section deterioration and alligator cracking.</p> <p>The remainder of SR 270 is maintained by Mono County under agreement with the California Department of Parks and Recreation, extends for 3.49 miles (5.62 kilometers) of unpaved roadway.</p> <p>The entire route is primarily used for access to hiking, designated areas for off-road vehicles, and the gateway to visiting Bodie Historic State Park.</p>	Route Concept Improvement Recommendations	<p>Improvements to include shoulder widening to 4.0 feet (1.22 meters) and travel lanes to 12.0 feet (3.35 meters) throughout paved segment length to meet resurfacing, rehabilitation and restoration standards with consideration of existing drainage network.</p> <p>Future road widening will also benefit bicycle use where feasible.</p>																																						
Segment Description																																													
<p>This segment is a two-lane conventional highway from the Junction of US 395, extending eastbound for 9.81 miles (15.79 kilometers) along winding mountainous terrain varying in elevation from 6,800 feet (2,073 meters) to 8,300 feet (2,529 meters). The beginning of the route features many steep canyon walls. Present roadway conditions include severe cross section deterioration and alligator cracking.</p> <p>The remainder of SR 270 is maintained by Mono County under agreement with the California Department of Parks and Recreation, extends for 3.49 miles (5.62 kilometers) of unpaved roadway.</p> <p>The entire route is primarily used for access to hiking, designated areas for off-road vehicles, and the gateway to visiting Bodie Historic State Park.</p>																																													
Route Concept Improvement Recommendations																																													
<p>Improvements to include shoulder widening to 4.0 feet (1.22 meters) and travel lanes to 12.0 feet (3.35 meters) throughout paved segment length to meet resurfacing, rehabilitation and restoration standards with consideration of existing drainage network.</p> <p>Future road widening will also benefit bicycle use where feasible.</p>																																													
<table><tr><td>Programmed Projects</td></tr><tr><td>No capacity or operational improvements are programmed for this segment.</td></tr></table>				Programmed Projects	No capacity or operational improvements are programmed for this segment.																																								
Programmed Projects																																													
No capacity or operational improvements are programmed for this segment.																																													
<table><tr><td colspan="4">Highway Network Affiliation</td><td colspan="3">Highway Information</td></tr><tr><td colspan="4">Functional Classification: Major Collector</td><td>Units</td><td>Feet</td><td>Meters</td></tr><tr><td>National Hwy System</td><td>No</td><td>Scenic Highway</td><td>No</td><td>Average Median Width</td><td>0</td><td>0</td></tr><tr><td>California Freeway Expressway System</td><td>No</td><td>National Truck Network</td><td>No</td><td>Average Shoulder Width</td><td>3</td><td>0.9</td></tr><tr><td>STRAHNET</td><td>No</td><td>Life Line</td><td>No</td><td>Average Lane Width</td><td>11</td><td>3.4</td></tr><tr><td>Regionally Significant</td><td>No</td><td>IRRS</td><td>No</td><td></td><td></td><td></td></tr></table>				Highway Network Affiliation				Highway Information			Functional Classification: Major Collector				Units	Feet	Meters	National Hwy System	No	Scenic Highway	No	Average Median Width	0	0	California Freeway Expressway System	No	National Truck Network	No	Average Shoulder Width	3	0.9	STRAHNET	No	Life Line	No	Average Lane Width	11	3.4	Regionally Significant	No	IRRS	No			
Highway Network Affiliation				Highway Information																																									
Functional Classification: Major Collector				Units	Feet	Meters																																							
National Hwy System	No	Scenic Highway	No	Average Median Width	0	0																																							
California Freeway Expressway System	No	National Truck Network	No	Average Shoulder Width	3	0.9																																							
STRAHNET	No	Life Line	No	Average Lane Width	11	3.4																																							
Regionally Significant	No	IRRS	No																																										

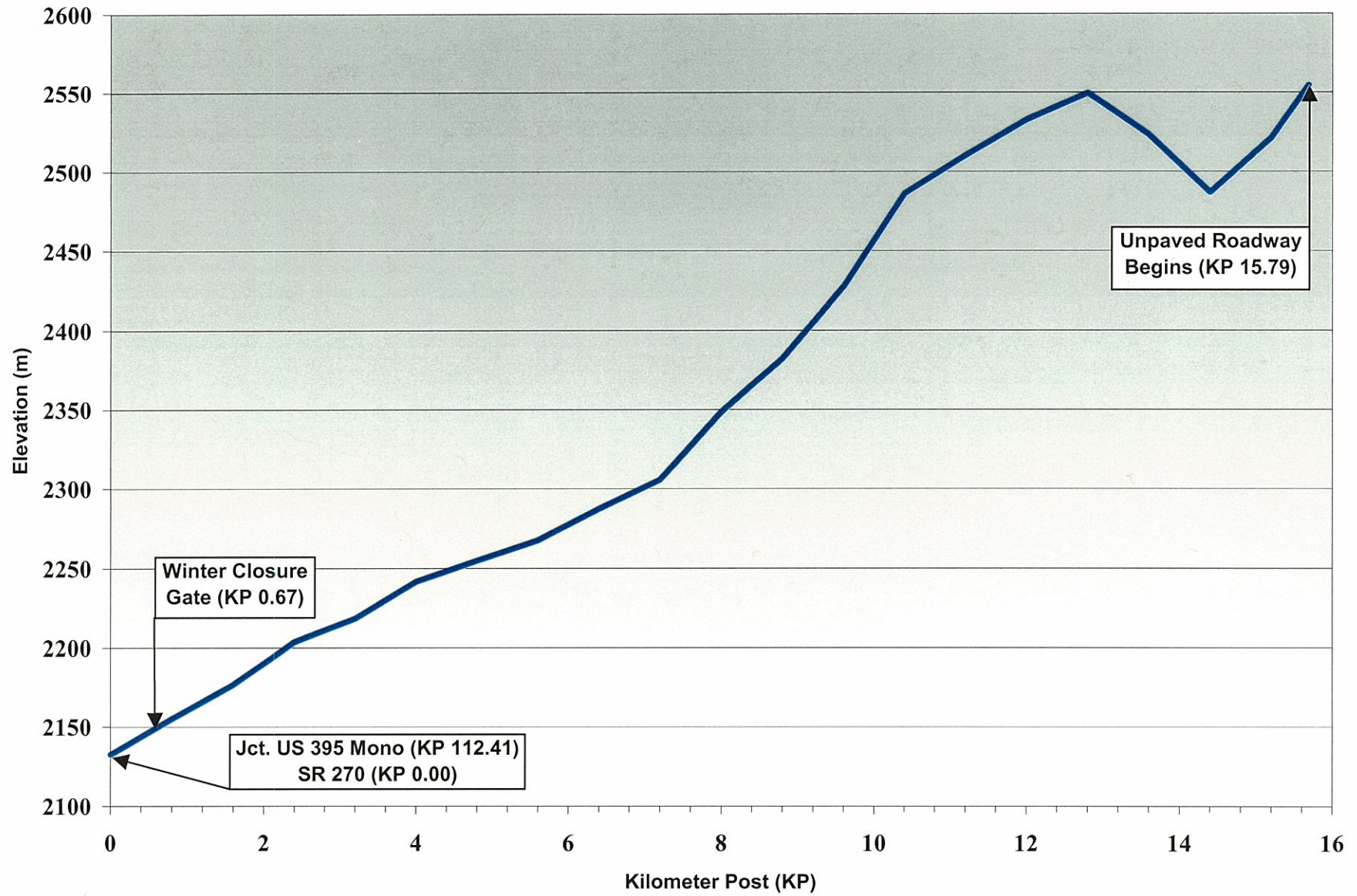
SR 270 SEGMENT FACT SHEET

RTPA/COG/MPO Mono County LTC Scott Burns, Executive Director PO Box 347 Mammoth Lakes, CA 93546	Air Quality Comments For State of California and National Ambient Air Quality Standards this area is out of conformity for PM ¹⁰ . Probable cause is dust from Mono Lake and wood burning from the Town of Mammoth Lakes. State of California Ambient Air Quality standard is out of conformity for Ozone 1-hour standard. Probable cause is transport from the San Joaquin Valley.				
Transit Service/ Modal Options Bicycle travel is allowed. Scheduled transit service is not available at this time; however, tourist bus service is available.					
Land Use Land Use for this segment includes open range land, wetlands, and recreational use areas. Land Use Designation is authorized for agriculture, resource management, with scenic considerations. Ownership is by Bureau of Land Management (BLM), Mono County, State of California State Lands Commission, and a few private parcels. A private Recreational Vehicle Park, and a BLM visitor's center are also being considered at this time.					
Environmental Concerns Sensitive species of plants that are found along the SR 270 corridor include, but are not limited to: Bodie Hills Draba, Bodie Hills Rock Cress, Masonic Rock Cress, Mono County Phacelia, and Great Basin Onion. The Sage Grouse and the Travertine Band-thigh Diving Beetle are also of concern. Other areas of concern include wetlands, water quality, and archaeological sites. The portion of unpaved road is within the Area of Critical Concern, and Bodie Bowl Withdrawal.					
Traffic Analysis Comments According to Table B of the Traffic Accident Surveillance and Analysis System (between 9/1/92 to 8/31/02), the total accident rate (.032) is below the statewide average rate (1.21). Seventy-five percent of primary collision factors were due to failure to maintain control of vehicle and unsafe speed, 17% overturn collisions, and 8% rear end collisions.					
Right of Way Comments Right of Way width varies from 60 ft (18.28 meters) to 100 ft (30.48 meters), comprising of easement, fee, and prescriptive use through private property, and the Bureau of Land Management, Mono County, and State of California State Lands Commission.					
Highway Operation Facts					
Traffic Information/Forecasts	Design Hour Volumes	V/C Ratio	LOS		
2004 AADT 500	2004 DHV 130	2004 V/C 0.02	A		
2014 AADT 552	2014 DHV 144	2014 V/C 0.03	A		
2024 AADT 610	2024 DHV 159	2024 V/C 0.04	A		
Calculation Factors					
Fatality + Injury Accident Rate	.032	% Traffic Growth (0-10 yrs)	1.0%	Percent Trucks	3.6%
Fatality + Injury Statewide Avg Rate	1.21	% Traffic Growth (10-20 yrs)	.5%	Percent RV's	3.3%
Total Accident Rate	0.64	Directional Split	50/50	Percent Buses	.5%
Total Statewide Avg Rate	2.41	Terrain	Rolling		

STATE ROUTE 270 Elevation Profile (US Customary Units)



STATE ROUTE 270 Elevation Profile (Metric Units)



GLOSSARY

Concept Facility	Highway facility type and characteristics considered viable with or without improvements within the 20-year planning period given financial, environmental, planning and engineering factors.
Concept LOS	Highest and best Level of Service that can be achieved in the 20-year planning period based on the concept facility.
Directional split	The percentage of traffic in the peak direction compared to traffic in both directions during the design hour.
Functional Classification	Refers to a process guided by Federal legislation, which groups streets and highways into classes or systems based on the character of the service that is provided (e.g., Principal Arterial, Minor Arterial Roads, Collector Roads and Local Roads).
Interregional Road System	Statewide network of legislatively identified interregional routes, outside urbanized areas, that provides access to, and links between, the State's economic centers, major recreational areas, urban, and rural regions.
Level of Service (LOS)	A qualitative rating of the effectiveness of a transportation system in serving travel. Letters A (best) through F (worst).
National Highway System	Federal-designated system of major highways in each state.
Present Facility	Type and general characteristics of highway at the time of this study.
Present LOS	Existing Level of Service.
Programmed Projects	Capacity-enhancing safety and/or operational improvement projects that could possibly be programmed.
Route Designations	Identifies whether or not the subject segment of a route is designated as being part of the National Highway System (NHS), Interregional Highway System (IRRS), California Freeway/Expressway (F & E) System, Scenic Highway, National Truck Network (NTN), Terminal Access Route for the National Truck Network, Strategic Highway Network (STRAHNET), and Highways of Regional Significance.

ACRONYMS

AADT	Average Annual Daily Traffic
ADT	Average Daily Traffic
BLM	Bureau of Land Management
DHV	Design Hour Volumes
KP	Kilometer Post
LOS	Level of Service
MNO	Mono
KP	Kilometer Post
PM	Post Mile
RV	Recreational Vehicle
SR	State Route
TCR	Transportation Concept Report
USFS	United States Forest Service
V/C	Volume to Capacity

SOURCES of INFORMATION

California Transportation Commission: Memorandum file 09-Mno-270 0.0/9.9
Dated: December 1, 1978, and April 19, 1978.

Transportation Research Board, *Highway Capacity Manual*/Software, 2000

Caltrans Route Concept Report, SR 270 - 1985

***Mono County Regional Transportation Plan* updated 2001**

Traffic Accident Surveillance and Analysis System, Table B, Accident Data
(09/01/92) – (08/31/02)

“The Bodie Bowl - Area of Critical Environmental Concern, Management Plan”
- Bureau of Land Management, July 1995